

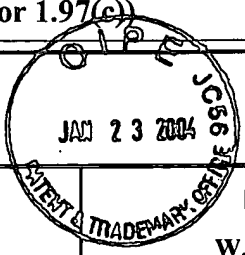
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**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT**  
(Under 37 CFR 1.97(b) or 1.97(c))

Docket No.  
112857-307

In Re Application Of: **Hiroyuki Okuyama et al.**



Serial No.  
10/024,883

Filing Date  
December 17, 2001

Examiner  
W. Brewster

Group Art Unit  
2823

Title: **SEMICONDUCTOR LIGHT EMITTING DEVICE AND FABRICATION METHOD THEREOF**

Address to:  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**37 CFR 1.97(b)**

1. ☐ The Information Disclosure Statement submitted herewith is being filed within three months of the filing of a national application other than a continued prosecution application under 37 CFR 1.53(d); within three months of the date of entry of the national stage as set forth in 37 CFR 1.491 in an international application; before the mailing of a first Office Action on the merits, or before the mailing of a first Office Action after the filing of a request for continued examination under 37 CFR 1.114.

**37 CFR 1.97(c)**

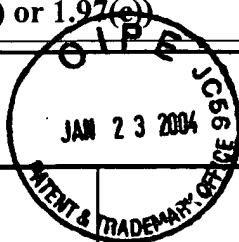
2. ☒ The Information Disclosure Statement submitted herewith is being filed after the period specified in 37 CFR 1.97(b), provided that the Information Disclosure Statement is filed before the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:
- ☐ the statement specified in 37 CFR 1.97(e);
- OR**
- ☒ the fee set forth in 37 CFR 1.17(p).

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**SEMICONDUCTOR LIGHT EMITTING DEVICE AND FABRICATION METHOD THEREOF**

**Payment of Fee**

(Only complete if Applicant elects to pay the fee set forth in 37 CFR 1.17(p))

- ☒ A check in the amount of \$180.00 is attached.
- ☒ The Director is hereby authorized to charge and credit Deposit Account No. 02-1818 as described below.
- ☐ Charge the amount of
- ☒ Credit any overpayment.
- ☒ Charge any additional fee required.

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I certify that this document and fee is being deposited on 01-20-2004 with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*Karin Barrett*

Signature of Person Mailing Correspondence

Karin Barrett

Typed or Printed Name of Person Mailing Certificate

\*This certificate may only be used if paying by deposit account.

Signature

Dated: January 20, 2004

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Hiroyuki Okuyama et al.  
Appl. No.: 10/024,883  
Conf. No.: 6182  
Filed: December 17, 2001  
Title: SEMICONDUCTOR LIGHT EMITTING DEVICE AND FABRICATION  
METHOD THEREOF  
Art Unit: 2823  
Examiner: W. Brewster  
Docket No.: 112857-307

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with the provisions of 37 C.F.R. 1.56, 37 C.F.R. 1.97, and 37 C.F.R. 1.98, Applicants request that a citation and examination of the references cited below, and on the attached PTO-1449 form, copies of which are enclosed, be made during the course of examination of the above-identified application for United States patent.

U.S. PATENT DOCUMENTS

<u>Document No.</u>	<u>Date</u>	<u>Inventor</u>
5,177,405	January 5, 1993	Kusuda et al.
5,981,977	November 9, 1999	Furukawa et al.

FOREIGN PATENT DOCUMENTS

<u>Document No.</u>	<u>Date</u>	<u>Country</u>
56-92577	July 27, 1981	Japan
57-45583	March 15, 1982	Japan
57-52071	March 27, 1982	Japan
57-52072	March 27, 1982	Japan
57-52073	March 27, 1982	Japan
58-50577	March 25, 1983	Japan
61-156780	July 16, 1986	Japan
63-188938	August 4, 1988	Japan

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01/26/2004 NROCHA1 00000060 10024883

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<u>Document No.</u>	<u>Date</u>	<u>Country</u>
02-263668	October 26, 1990	Japan
03-035568	February 15, 1991	Japan
06-067044	March 11, 1994	Japan
06-045648	February 18, 1994	Japan
07-199829	April 8, 1995	Japan
08-008217	January 12, 1996	Japan
08-255929	October 1, 1996	Japan
09-129974	May 16, 1997	Japan
09-199419	July 31, 1997	Japan
WO 97/44612	November 27, 1997	PCT
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10-270801	October 9, 1998	Japan
10-312971	November 24, 1998	Japan
10-321910	December 4, 1998	Japan
11-026883	January 29, 1999	Japan
11-075019	March 16, 1999	Japan
11-177138	July 2, 1999	Japan
11-238687	August 31, 1999	Japan
11-251253	September 17, 1999	Japan
11-274568	October 8, 1999	Japan
11-312840	November 9, 1999	Japan
11-514136	November 30, 1999	Japan
11-346004	December 14, 1999	Japan
2000-012976	January 14, 2000	Japan
2000-068593	March 3, 2000	Japan
2000-150391	May 30, 2000	Japan
2000-183451	June 30, 2000	Japan
2000-223417	August 11, 2000	Japan
2000-332343	November 30, 2000	Japan
2001-085738	March 30, 2001	Japan
2001-217503	August 10, 2001	Japan

<u>Document No.</u>	<u>Date</u>	<u>Country</u>
2002-185660	December 12, 2002	Japan

### **OTHER DOCUMENTS**

Zheleva et al., *Pendeo-epitaxy – a new approach for lateral growth of gallium nitride structures*, MRS Internet J. Nitride Semicond. Res. 4S1, G3.38 (1999).

Kapolnek et al., *Spatial control of InGaN luminescence by MOCVD selective epitaxy*, Journal of Crystal Growth, 189/190 (1998) pp. 83-86.

J. Wang et al., *Fabrication of nanoscale structures of InGaN by MOCVD lateral overgrowth*, Journal of Crystal Growth 197 (1999), pp. 48-53.

Raj Singh et al., *Selective Area Growth of GaN Directly on (0001) Sapphire by the HVPE Technique*, MRS Internet Journal Nitride Semiconductor Research, 3, 13 (1998), pp. 1-4.

Zhigang Mao, et al., *Defects in GaN Pyramids Grown on Si(111) Substrates by Selective Lateral Overgrowth*, Materials Research Society Meeting in Boston, Mass. (1998), pp. 1-6.

Tachibani et al., *Selective growth of InGaN quantum dot structures and their microphotoluminescence at room temperature*, Applied Physics Letters, Vol. 76, No. 22, May 29, 2000, pp. 3212-3214.

Yang et al., *Single-crystal GaN pyramids grown on (1 1 1)Si substrates by selective lateral overgrowth*, Journal of Crystal Growth, Volume 204, (1999), pp. 247-418.

Applicants look forward to early and favorable consideration of this matter.

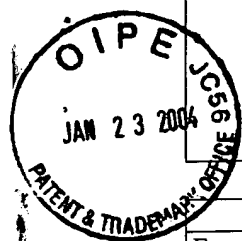
Respectfully submitted,

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Dated: January 20, 2004



**INFORMATION DISCLOSURE CITATION  
IN AN APPLICATION**  
(Use several sheets if necessary)

PTO Form 1449

Atty Docket No. 112857-307	Application No. 10/024,883
Applicant Hiroyuki Okuyama et al.	
Filing Date 12-17-2001	Group 2823

**U.S. PATENT DOCUMENTS**

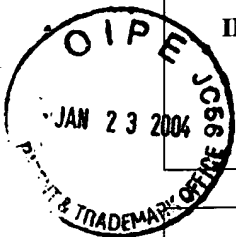
Examiner's Initials	Document Number	Publication Date	Inventor	Class	Subclass	Filing Date If Appropriate

**FOREIGN PATENT DOCUMENTS**

Examiner's Initials	Document Number	Publication Date	Country	Class	Subclass	Translation	
						Yes	No
	56-92577	07-27-81	Japan				
	57-45583	03-15-82	Japan				
	57-52071	03-27-82	Japan				
	57-52072	03-27-82	Japan				
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	58-50577	03-25-83	Japan				
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	63-188938	08-04-88	Japan				
	02-263668	10-26-90	Japan				
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	10-125929	05-15-98	Japan				
	10-265297	10-06-98	Japan				

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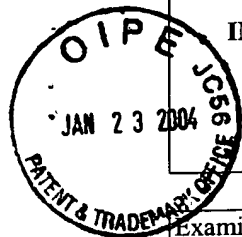
<b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b> (Use several sheets if necessary)  PTO Form 1449	Atty Docket No. 112857-307	Application No. 10/024,883
	Applicant Hiroyuki Okuyama et al.	
	Filing Date 12-17-2001	Group 2823

FOREIGN PATENT DOCUMENTS								
Examiner's Initials		Document Number	Publication Date	Country	Class	Subclass	Translation	
							Yes	No
		10-270801	10-09-98	Japan				
		10-312971	11-24-98	Japan				
		10-321910	12-04-98	Japan				
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		2000-150391	05-30-00	Japan				
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		2001-085738	03-30-01	Japan				
		2001-217503	08-10-01	Japan				
		2002-185660	12-12-02	Japan				

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Examiner's Initials	<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>
	Zheleva et al., <i>Pendeo-epitaxy – a new approach for lateral growth of gallium nitride structures</i> , MRS Internet J. Nitride Semicond. Res. 4S1, G3.38 (1999).

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	Applicant Hiroyuki Okuyama et al.	
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	J. Wang et al., <i>Fabrication of nanoscale structures of InGaN by MOCVD lateral overgrowth</i> , Journal of Crystal Growth 197 (1999), pp. 48-53.
	Raj Singh et al., <i>Selective Area Growth of GaN Directly on (0001) Sapphire by the HVPE Technique</i> , MRS Internet Journal Nitride Semiconductor Research, 3, 13 (1998), pp. 1-4.
	Zhigang Mao, et al., <i>Defects in GaN Pyramids Grown on Si(111) Substrates by Selective Lateral Overgrowth</i> , Materials Research Society Meeting in Boston, Mass. (1998), pp. 1-6.
	Tachibani et al, <i>Selective growth of InGaN quantum dot structures and their microphotoluminescence at room temperature</i> , Applied Physics Letters, Vol. 76, No. 22, May 29, 2000, pp. 3212-3214.
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